

REMARKS

Election/Restriction

Claims 26-29, 34-48, 66-82, and 84-85 were elected for prosecution in Applicants' response of 12 April 2002 to the second restriction requirement. However, the Office action of 18 December 2002 indicates that claims 1-25, 30-33, 49-65, and 86-93 are withdrawn from consideration. Applicants therefore request clarification as to whether claim 83 has been reinstated for examination or whether it is actually withdrawn from consideration.

Claim Amendments

Non-elected claims 1-25, 49-65, and 86-93 are canceled herein without prejudice to or disclaimer of the subject matter contained therein. Claims 26 and 66 are amended to indicate with greater specificity that the electrically conductive hard particles are not affixed to electrical contacts by an adhesive in the present invention. Claims 41, 42, 78, and 79 are amended to more clearly indicate that the metal plating layer is part of the structure of the claimed component. New claims 94 and 95 are directed to an alternate configuration of the invention wherein the electrically conductive hard particles pierce a surface of an opposing electrical contact. This embodiment is likewise presented in original claim 27, currently pending.

Obviousness - 35 U.S.C. § 103

Claims 26-29, 34-48, and 66-85 are rejected in the Office action as obvious in view of the combination of U.S. Patent No. 6,238,597 B1 to Yim et al. and U.S. Patent Application Publication No. 2002/0181208 A1 to Credelle et al. Applicants initially note that Credelle et al. is not an appropriate prior art reference as it does not meet the requirements of a prior art publication under 35 U.S.C. § 102(a), (b), or (e). See MPEP §§ 706.02 and 706.02(a). The present application claims priority as a continuation-in-part of U.S. patent application no. 09/812,140 filed 19 March 2001, which is itself a continuation of U.S. patent application serial no. 09/684,238 filed 5 October 2000, now abandoned. The present application also claims priority to U.S. provisional application no. 60/233,561 filed 19 September 2000 and is also a continuation-in-part of U.S. patent application no. 09/883,012 filed 15 June 2001.

The '140 application was published as U.S. Patent Application Publication No. 2002/0027294. It is apparent upon review of Figures 8A and 8B of the '140 application and the corresponding description in the specification (see paragraphs 68-69 in Publication No. 2002/0027294) that at least claims 26-29, 34-35, 37-41, 43-46, 66, 69-71, 73, 75-78, and 80-82 are fully supported by the disclosure of the '140 application. Further, the disclosure of the

'140 application is identical to the disclosure of the '238 application. Therefore, the effective date of the present application is at least 5 October 2000, for at least the indicated claims, which predates the effective date of Credelle et al.

With respect to Yim et al., the Office action applies this reference specifically to independent claims 26 and 66. The Office action suggests that Yim et al. discloses "at least one electrically conductive hard particle 50 attached to at least one do [sic] the first and second electrically conductive contacts" Yim et al. in fact discloses an anisotropic conductive adhesive containing "electrically conductive material," for example, "a solder, a gold-coated polystyrene, a sliver [sic] or a nickel powder." See col. 3, ll. 6-7. Yim et al. does not teach or describe that the various conductive materials used to create the anisotropic adhesive pierce any of the contact surfaces to which the anisotropic adhesive is applied as recited in claims 27, 94, and 95. Similarly, Yim et al. does not suggest that the conductive materials disclosed are capable of piercing an opposing contact surface as claimed of the present invention.

Further, the electrical component of the present invention as recited in claims 26, 66 are composed of electrically conductive hard particles attached to contacts or conductive areas without the use of an adhesive. This is a significantly different structure than that of a component joined by an anisotropic adhesive as disclosed in Yim et al. and is not taught or suggested therein. In one embodiment, the electrically conductive hard particles are attached to contacts by a plated metal layer as recited in claims 41, 42, 78, and 79. Yim et al. does not describe or suggest attaching electrically conductive hard particles to a contact surface with a plated metal layer.

Applicants also note that none of dependent claims 27-29, 34-48, 67-77 80-82, and 84-85 were specifically addressed in the Office action. Although Yim et al. and Credelle et al. are cited generally as obviating each of these claims, the Office action provides no indication of how or where the references teach these limitations. Further, Credelle et al. does not meet the statutory requirements for an anticipatory reference so its application, if any were cognizable, is moot. Applicants contend that each of dependent claims 27-29, 34-48, 67-77 80-82, and 84-85 are patentable over Yim et al.

Reinstatement of Species Claims – 37 C.F.R. §§ 1.141 & 1.143

Applicants' 30 September 2002 response to the Office action dated 1 July 2002 requested reinstatement of claims to non-elected species. This request was not addressed in the Office action dated 18 December 2002. Applicants hereby reassert their request that the

restriction of claims 30-33 and 83 be withdrawn and that these claims be allowed to issue as dependent to generic independent claims 26 and 66.

Conclusion

In light of the remarks above, Applicants believe the claims under consideration in this application are allowable and request issuance in due course. Applicants further request withdrawal of the restriction of claims 30-33 and 83 and issuance of these claims as well.

Respectfully submitted this 1st day of April 2003.



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Docketing